



NEWSLETTER

INSTITUTE FOR SUCCESSFUL LONGEVITY

DISASTER RESEARCH

**ISL Faculty Affiliate
Eren Ozguven leads
a new center dedicated
to helping communities
prepare for the worst
and build resiliency**



Take steps to ensure your heirs have access to your digital assets

If you are like me, you have valuable data assets stored in electronic devices such as computers, smartphones, and tablets. As more and more of our transactions have become electronic our heirs may face enormous challenges recovering that information after we die or become incapacitated. The challenges are increasing with two-factor authentication (2FA) processes guarding our devices and accounts. If heirs were lucky in the past, you provided them with access to your computing devices by sharing passwords in some secure format, such as placing them in a physical safe that they had access to upon your death or incapacity. However, because phishing scams and hacking generally have become commonplace as a way to steal a user's account information and passwords, companies like Google, Apple, Microsoft, and Amazon are increasingly encouraging or even requiring that accounts become safeguarded with 2FA.

Florida State University now requires two-factor authentication to access a work account, following the rule of requiring two pieces of information before letting you access an account. The first factor is something you know: your account name and associated password. The second factor is something that you alone possess: biometrics such as a fingerprint or iris scan, your smartphone, or possibly a hardware key. That way, even if someone hacks your computer or tricks you into giving up your account name and password through phishing, they still can't log in to your account without that second factor.

Usually, you set up 2FA by specifying how you will be contacted for the second form of authentication. The most common and easily managed form of two-factor authentication involves sending a message to your smartphone and asking you to acknowledge that message, basically proving that "you are you" through possession of the device and responding to the challenge within a short period of time. The challenge is sent either through an app that runs in the background on your phone (e.g., Google's Duo app), or through a message sent to you by SMS (text message), via an e-mail, or if you don't have a smartphone, through an old-fashioned telephone call that reads the digits to you so that you can type them into your computer as you log in to your account.

When using a smartphone to log into a bank account, 2FA challenges may allow

If you die and your smartphone is safeguarded (by a fingerprint, retinal scan, or password), your heirs may be stymied for weeks, even if equipped with powers of attorney, as they go through alternate routes to gain access.

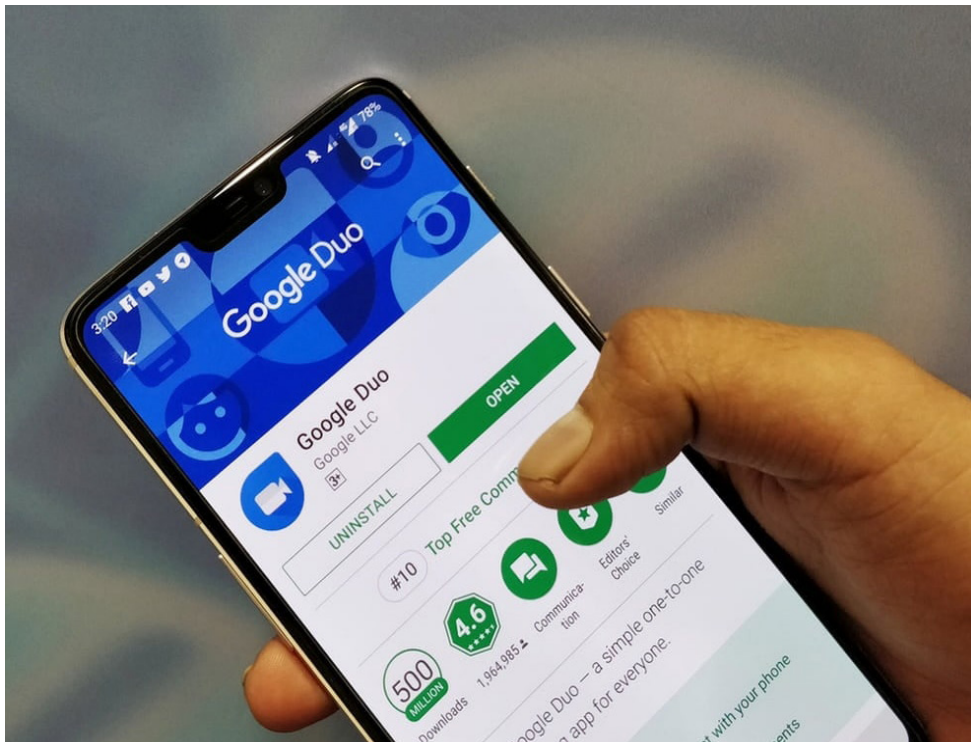
Worse yet, if you die and your smartphone is safeguarded (by a fingerprint, retinal scan, or password), your heirs may be stymied for weeks, even if equipped with powers of attorney, as they go through alternate routes to gain access.

FROM THE DIRECTOR



Neil Charness, Ph.D., is the William G. Chase Professor of Psychology at Florida State University and director of the Institute for Successful Longevity.

you to authenticate with a biometric such as a registered fingerprint or retinal scan, in addition to an account name and password. But, what if you lose your smartphone or you are in a dead zone for cellular service? How do you get into your account? There are sometimes alternate ways to prove that "you are you" through answers to questions that only you are likely to know, such as the city you were born in, the model of your first car, your favorite movie, etc. But these ways of authenticating access are time consuming and may be hampered if, for instance, you lose your smartphone on that exotic vacation.



Google's Duo app is a popular way to use two-factor authentication.

or tablet or by communicating wirelessly with your smartphone using near-field communication (NFC) to authenticate that “you are you.” You may already have turned on NFC on your smartphone in order to pay for goods and services. Once you register hardware keys with your account, the 2FA challenge requires you to activate the hardware key by plugging it into a port on your computing device and touching a sensor on the key. Anyone with the key can authenticate to your registered account (assuming they have the first factor: your account name and password, and that the key does not require a biometric such as a fingerprint to activate).

So, much like your smartphone, you should be careful not to lose a hardware key. If it is to be your only authentication method, you ought to register a backup hardware key with the accounts you want to protect and then safely store the backup.

Unlike a fingerprint or retinal scan that no longer works when you die, the hardware key can stay behind, and hopefully, in the right hands that have been provided with the first factor, provide access to your accounts. (The fraught topic of being defrauded by those you trust will have to wait for another column.)

Although the digital economy was meant to reduce friction for transactions, it can also introduce complexities for transactions such as requiring two-factor authentication to guard against hacking and password theft. We don't often consider all the ramifications of activating 2FA for our accounts, particularly how we provide access to heirs who may need our digital information to settle our estate.

Plan carefully now for how to safely pass on your digital assets! ■

There are some solutions to consider. The first is: Don't die. Mind you, if you know how to live eternally then you are already in a different league than the rest of us mortals and can stop reading now. As mentioned earlier, another risk is dementia, rendering you incapable of even managing 2FA on your own. So, since it is difficult to avoid dying and hard to completely rule out developing dementia or other form of cognitive impairment, you need to have alternate methods to provide loved ones with access to your 2FA-protected electronic accounts.

Although it is not yet used universally for two-factor authentication, a hardware key (e.g., YubiKey) may offer something that can easily transfer to an heir or partner. These are USB devices that you can purchase relatively inexpensively. They work when you plug them into a port on your computer



YubiKey is a device that allows authentication to be easily shared by sharing the hardware key.

ISL Faculty Affiliate leads new RIDER Center to help communities plan and prepare for disasters

In Florida, we have crazy weather. We've learned to hunker down or evacuate, but both can pose challenges for older adults. Now a Faculty Affiliate of the Institute for Successful Longevity is leading a new research center developing better ways for communities to plan, to prepare and to react to weather events and other threats in ways that accommodate the needs of older people and all populations.

With his new [Resilient Infrastructure and Disaster Response \(RIDER\) Center](#), Eren Erman Ozguven, Ph.D., will research better ways for communities in Florida and other vulnerable states to plan for and recover from disasters. His focus will mainly be on rural communities, which lack the planning departments and other resources available to metropolitan areas.

“The Resilient Infrastructure and Disaster Response Center is founded with the mission of achieving adaptive capacity and resilience for the communities affected by natural disasters such as hurricanes and pandemics like COVID-19,” said Ozguven, associate professor in civil and environmental engineering at the FAMU-FSU College of Engineering. Drawing on the center's expertise in community-scale infrastructure limitations in planning for natural disasters, the RIDER researchers will work to reduce the vulnerability of rural communities.

“This work is desperately needed by the under-served areas of the state and the country affected by natural disasters,” he said.

Florida's communities are starkly different. Miami-Dade County, in the far south, has 2.8 million people. Next door, Broward County has 1.9 million residents, and nearby Palm Beach County has 1.5 million. In the center of the state sits Orange County, with 1.4 million, and on the Gulf Coast there is Pinellas County, just shy of 1 million. These are large counties, and with size comes resources and the myriad offices and experts and emergency-preparedness personnel needed to contend with Florida life.

By comparison are the Panhandle communities, a fraction of the size of these behemoths. Madison County, for example, has but 19,000 residents, and Gulf County, 14,000. Franklin County has only 11,000 people, and then there is Liberty County,



Associate Professor Eren Erman Ozguven, Ph.D., on a traffic research study in Tallahassee; as director of the new RIDER Center, he will work with communities to develop emergency response plans that address the needs of older adults and others.

with a population of fewer than 9,000 residents, of which 15 percent are 65 and older. The planning experts found in metro centers are few in number in these rural communities, and by every measure of resiliency Florida's smaller counties are stretched.

The gap in preparedness and expertise, namely the “resilience divide” between big and small, rich and poor communities, is what the RIDER Center works to close.

“Rural areas often have more infrastructure limitations and communication challenges than their urban counterparts,” Ozguven said. “The RIDER Center aims to address these challenges and serves as a technical repository on disaster response and recovery.”

To address this disparity, the center brings together a collection of university experts. “RIDER is a multi-disciplinary research center that unites engineers, social scientists, social workers, health, public policy, communication and information specialists,” Ozguven said. Working together synergistically, the RIDER team develops emergency plans for both urban and rural communities to solve the real-world problem of resilience divide.

“Little to no research focuses on integrating the resilience needs within and across both urban and rural communities,” Ozguven said. “The RIDER Center uses holistic and multi-network approaches to address characterizing, modeling, and analyzing community resilience. We help develop resilience plans that can fit the distinct needs of varying population settings and segments.”

The RIDER Center plans important work on older adults in times of disaster and crisis, people who in the past have not been adequately considered in emergency planning. In an article in the *Orlando Sentinel*, Ozguven used Florida's response to Hurricane Irma as an example of hurried planning gone wrong. “Hurricane Irma clearly showed that many seniors were reluctant to evacuate due to their fear for dangerous environments, loss of property, and language/cultural barriers,” he wrote. “For many seniors who have trouble dressing, bathing, concentrating, remembering and making decisions, the evacuation process was complicated and stressful. Many declined to take action because of constraints based on their special needs, physical disabilities, cognitive impairments, concern for pets or lack of financial resources. Emergency plans must take into account these factors affecting older adults.”

Ozguven acknowledges that removing barriers for seniors is a big task. It requires coordination of leaders on various levels — state, city, county, regional, even national — and the blending of efforts of government and nonprofits. “Communities have to do a lot themselves,” he said, “in forming social networks that serve older adults and developing emergency plans that work down to the neighbor-to-neighbor level of aid and communication.”

This kind of detailed planning is hard to accomplish, especially for small, rural governments. The RIDER Center will work with rural communities to build all-inclusive emergency plans that can reach out quickly and effectively to older adults and others most in need.

“Storm preparation works,” Ozguven said. “If we take steps to better prepare, following research on effective techniques and policies, Florida and its communities can respond in ways that fit the diverse needs of senior adults and allow for less-stressful evacuations, assist with effective sheltering and, ultimately, save lives. And that's where the RIDER Center hopes to have a big impact.” ■



Ozguven talks to experts with FSU's Center for Advanced Power Systems about Hurricane Hermine and how the storm disrupted the electrical power in Florida's Big Bend.

Are American universities age-friendly institutions?

ISL assists Umass Boston with nationwide study

The Institute for Successful Longevity is assisting a study to determine whether U.S. colleges and universities are age-friendly institutions and welcoming to seniors.

“The goal of the study is to gauge where age-friendliness now stands in American higher education,” said Callie Kindelsperger, ISL’s administrative assistant, who is working with the project.

Age-Friendly University is an international effort, launched by Dublin City University in Ireland and now active in many nations, that highlights the role higher education plays in meeting the challenges and opportunities of an aging population. In 2017, Florida State University became the first university in the South to be named an Age-Friendly University.

In the study funded through RRF (formerly the Retirement Research Foundation) and led by researchers at UMass Boston, ISL along with other institutions across the nation will conduct surveys designed to:

- Identify benchmarks for age-friendly programs and practices.
- Evaluate the utility of the Age-Friendly University Inventory and Campus Climate Survey for measuring campus age-friendliness.
- Compare the “actual” and “perceived” age-friendliness of institutions.
- Provide recommendations for advancing age inclusivity in higher education.



Callie Kindelsperger, ISL’s administrative assistant, is assisting with the nationwide study.

The study design calls for ISL and the other participating campuses to first conduct an inventory of campus practices from various administrative units throughout each of the 36 campuses in the study. The study will then follow with a Campus Climate Survey of faculty, staff, students and life-long learners and their perceptions across three areas: campus practices (research, testing services), age-friendliness (climate), and personal beliefs about aging.

Key to the study are the Age-friendly University initiative’s 10 principles for distinguishing and evaluating age-friendly programs and policies:

- To encourage the participation of older adults in all the core activities of the university, including educational and research programs.
- To promote personal and career development in the second half of life and to support those



A rainy day doesn’t slow down a walking group with FSU’s Osher Lifelong Learning Institute; OLLI is a key part of the university’s age-friendly focus.

who wish to pursue second careers.

- To recognize the range of educational needs of older adults (from those who were early school-leavers through to those who wish to pursue master's or Ph.D. qualifications).
- To promote intergenerational learning to facilitate the reciprocal sharing of expertise between learners of all ages.
- To widen access to online educational opportunities for older adults to ensure a diversity of routes to participation.
- To ensure that the university's research agenda is informed by the needs of an aging society and to promote public discourse on how higher education can better respond to the varied interests and needs of older adults.
- To increase the understanding of students of the longevity dividend and the increasing complexity and richness that aging brings to our society.
- To enhance access for older adults to the university's range of health and wellness programs and its arts and cultural activities.
- To engage actively with the university's own retired community.
- To ensure regular dialogue with organizations representing the interests of the aging population.

"We are pleased to be part of this study, which we hope will determine where American universities are succeeding in providing for people of all ages and reveal points of weakness that university leaders can address," said Neil Charness, director of the Institute for Successful Longevity. ■

Graham McDougall honored

Graham J. McDougall Jr., Ph.D., of the College of Nursing has received the National Hartford Center of Gerontological Nursing Excellence Program Recognition Award for Distinguished Educator in Gerontological Nursing.

McDougall is a Faculty Affiliate of the Institute for Successful Longevity. He was recognized for his expertise as an educator in Gerontological Nursing at the NHCNE Leadership Conference in October.



Graham J. McDougall Jr.

Amy L. Ai named Fellow

Amy L. Ai, Ph.D., a Faculty Affiliate of the Institute for Successful Longevity, has been named a Fellow of the American Academy of Social Work and Social Welfare.

Dr. Ai is a professor in FSU's College of Social Work. Her research interests involve gerontology, health disparities, cultural diversity, behavioral intervention, mindfulness, mental health and spirituality, as well as stress and coping.



Amy L. Ai



Geraldine Martorella, left, and Amy Chan Hyung Kim

Geraldine Martorella, Amy Kim join ISL

Geraldine Martorella, Ph.D., associate professor in the College of Nursing, and Amy Chan Hyung Kim, Ph.D., associate professor in the College of Education's Department of Sport Management, have joined the Institute for Successful Longevity as Faculty Affiliates.

In her research, Dr. Martorella develops and evaluates innovative non-pharmacological interventions for pain management and chronic pain prevention. Using experimental and mixed method designs, she focuses her research on psychosocial factors of pain, the use of information technologies, and complementary and alternative therapies.

Dr. Kim's research interest focuses on promoting sport for health from a social epidemiological perspective at various levels such as non-institutionalized older adults.

Eric Holmes named to National Academy of Inventors

Assistant Vice President for Research Eric Holmes, Ph.D., has been named to the National Academy of Inventors in recognition of his decades-long contributions to the biomedical field through academia and the corporate world.

Dr. Holmes is a member of the Institute for Successful Longevity's Joint Advisory Board.

"We are thrilled for Dr. Holmes to receive this distinction," said Vice President for Research Gary K. Ostrander. "Dr. Holmes is always thinking about inventive ways to transfer basic research to the bedside. And after 33 years, he shows no signs of slowing down. Our office has derived significant benefit from his real-world experience relative to patents, licenses, start-ups and even taking companies public."

Holmes has served as assistant vice president for Research since 2011. He has a long and distinguished career in both the private research sector as well as academia. He has written 93 peer-reviewed publications and patented 23 technologies — 21 of which were licensed to drug companies. He also co-founded Northwest Biotherapeutics, a public company focused on immunotherapy as a treatment for cancer. His research has largely focused on cancer, but more recently he has looked at antiviral therapeutics for viruses such as Zika.

"It's very kind of NAI to recognize my work in this way," Holmes said. "Research is about solving problems. You do it to get answers and along the way opportunities for practical applications appear that can do some good. They need to be pursued, too."

The NAI Fellows program recognizes academic inventors who have facilitated outstanding inventions that have made a tangible impact on quality of life, economic development and welfare of society. To date, NAI fellows hold more than 42,700 issued U.S. patents, which have generated more than 13,000 licensed technologies and companies and created more than 36 million jobs. ■



Eric Holmes is assistant vice president for research and a member of ISL's Joint Advisory Board.

Julia Sheffler honored by College of Medicine

Julia Sheffler, Ph.D., a Faculty Affiliate of the Institute for Successful Longevity, has been honored as the FSU College of Medicine's Outstanding Junior Faculty Researcher for 2020.

In addition, last month Dr. Sheffler receives the FSU KL2 Multidisciplinary Program Award for Early Career Faculty.

Dr. Sheffler is research faculty at the College of Medicine's Center for Translational Behavioral Science. Her work has examined risk and resiliency factors for health outcomes across the lifespan, including the influence of early experiences.

Her current research broadly involves the development and assessment of interventions for physical, mental, and neurocognitive disorders in older adults.

As a clinical psychologist, Dr. Sheffler currently focuses on applying behavioral and psychological principles to improve adherence to promising interventions, such as nutrition and exercise lifestyle changes. ■



Julia Sheffler is research faculty in the College of Medicine and an ISL Faculty Affiliate.